MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018/2019

DMA5018 – MULTIMEDIA APPLICATIONS

(For Diploma students only)

15 MARCH 2019
3:00 p.m. – 5:00 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **5 pages**.
2. Answer **ALL** questions in **Section A** and **Section B** on the **Answer Booklet**.

SECTION A: 20 MULTIPLE CHOICE QUESTIONS (20 MARKS)

*Instruction: Write your answers in the **Answer Booklet**.*

1. Large blank areas intentionally included in visual designs are called _____.
   A. blank space
   B. white space
   C. blank area
   D. white area

2. _____ is the strokes of a letter such as *k* and *h* that rise above the baseline.
   A. Stroke
   B. Ascender
   C. Descender
   D. Decoration

3. _____ is the simplest of data types and requires the least amount of storage.
   A. Character
   B. Video
   C. Audio
   D. Text

4. A/an _____ is defined as the reference from one document to another document, image, sound, or file on the Web.
   A. link
   B. node
   C. anchor
   D. structure

5. Which of the following statements are **TRUE** about bitmap image?
   I. Known as paint graphics.
   II. It is a photo-realistic image.
   III. The images can have varying bit and color depths.
   IV. The images is made up of individual dots or picture elements known as pels.
   A. I, II and III
   B. II, III and IV
   C. I, II and IV
   D. I, II, III and IV

6. Which of the following statements are **TRUE** about clip art?
   I. An alternative for users who do not want to create their own.
   II. An assortment of graphics, photographs, sound, and video.
   III. A collection are available on CD-ROMS.
   IV. A collection are available on the Internet.

   A. I, II and III
   B. II, III and IV
   C. I, II and IV
   D. I, II, III and IV

Continued...

7. The _____ key command use in Windows or the _____ key combination on the Macintosh copies the screen image to the clipboard.
   A. PRINT SCREEN ; COMMAND-SHIFT-4
   B. COMMAND-SHIFT ; PRINT SCREEN
   C. SHIFT SCREEN COMMAND-SHIFT-4
   D. COMMAND-SHIFT-4; ALT-PRINT SCREEN

8. All the following are the features of a 3-D application **EXCEPT**:
   A. Rendering
   B. Modeling
   C. Extrusion
   D. Lathing

9. Which of the following statements are **TRUE** about animation?
   I. Animation defined as the act of making something come alive.
   II. It is concerned with the visual or aesthetic aspect of the project.
   III. Animation is an object moving across, into, or out of the screen.
   IV. A series of images is rapidly changed to create an illusion of movement.

   A. I, II and III
   B. II, III and IV
   C. I, II and IV
   D. I, II, III and IV

10. Which of the following space dimension **BEST** describes for statement below?

> *An illusion of depth is created through shadowing, highlighting, and forced perspective, though in reality the image rests in two dimensions*

   A. 2-D space
   B. 2 ½ -D space
   C. 3 ½ -D space
   D. 3-D space

11. Which of the following are the steps in creating an animation?
   I. Must have multiple monitors
   II. Build and tweak the sequences
   III. Post-process the completed animation
   IV. Choose an animation tool best suited for the job
   V. Organize the execution in a series of logical steps

   A. I, II and III
   B. II, III and IV
   C. II, III, IV and V
   D. I, II, III, IV and V

Continued...

12. _____ depicts the action that takes place between keyframes.
    A. Cel
    B. Key
    C. Frame
    D. Tweening

13. _____ is the branch of physics that studies sound.
    A. Pitch
    B. Pressure
    C. Acoustic
    D. Amplitude

14. Which of the following sound editing operation **BEST** describes the statement below?

> *Capabilities to modify a recording frequency content that it sound brighter or darker.*

    A. Trimming
    B. Equalization
    C. Multiple track
    D. Volume adjustment

15. Which of the following statements are **TRUE** about MIDI?
    I. It is a digitized sound.
    II. Musical Instrument Digital Interface.
    III. Requires knowledge of music theory.
    IV. Usually embedded in web pages load and play promptly.
    V. The length of a MIDI file can be changed without affecting the pitch of the music or degrading audio quality.

    A. I, II and III
    B. II, III and IV
    C. II, III, IV and V
    D. I, II, III, IV and V

16. Which of the following multimedia element is the excellent tool for delivering multimedia?
    A. Text
    B. Audio
    C. Video
    D. Animation

17. Which of the following analog signals output provides the lowest video quality?
    A. S-Video
    B. Composite
    C. Component
    D. Separate Video

Continued...

18. Which of the following are the characteristics that influence the video size and quality?
    I. Frame rate.
    II. Frame size.
    III. Audio frame.
    IV. Audio settings.
    V. Colour resolution.

    A. I, II and III
    B. II, III and IV
    C. I, II, IV and V
    D. I, II, III, IV and V

19. Which of the following statements are **TRUE** to overcome the bottleneck?
    I. Store that data on the system's hard disk.
    II. Oblige users to download data only once.
    III. Implement incremental streaming methods.
    IV. Design multimedia elements to be efficiently compact.
    V. Design alternative low-bandwidth and high-bandwidth navigation paths to accommodate all users.

    A. I, II and III
    B. II, III and V
    C. I, II, III and IV
    D. I, II, III, IV and V

20. Which of the following are World Wide Web tools?
    I. Web servers.
    II. Web browsers.
    III. Search engines.
    IV. Plug-ins and delivery vehicles.
    V. Web page makers and site builders.

    A. I, II and III
    B. I, II, III and IV
    C. II, III, IV and V
    D. I, II, III, IV and V

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SECTION B: 3 STRUCTURED QUESTIONS (30 MARKS)

*Instruction: Write your answers in the **Answer Booklet**.*

QUESTION 1 (10 MARKS)

a) Explain dithering. [2 marks]

b) Explain cross-platform formats for images. [2 marks]

c) Differentiate between Sans Serif and Serif type of fonts. [4 marks]

d) Explain antialiasing are and how it works. [2 marks]

QUESTION 2 (10 MARKS)

A video stream with 28 frames per second playback rate and an audio stream of stereo voice channel. The size of each frame consists of 320 by 240 pixels of 24-bit colours depth and the audio is sample at 11.1 kHz with 16-bit sampling. The length for video is eleven minutes and thirty-two seconds.

a) Calculate the video file size. [4 marks]

b) Calculate the audio file size. [4 marks]

c) Calculate the storage required to store the video in gigabyte. [2 marks]

QUESTION 3 (10 MARKS)

a) Describe the function of Transmission Control Protocol/Internet Protocol (TCP/IP). [2 marks]

b) Briefly explain how a stream of data is send over the Internet. [6 marks]

c) Differentiate between Hypertext Transfer Protocol (HTTP) and Hypertext Markup Language (HTML). [2 marks]

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